

The Interpolation of the Frequency Characteristic of
Regulated Objects Within the Range of Low Frequencies

SV/101-10-3-22,27

for the purpose of checking the results obtained, the scheme of which is given (Fig 5) and discussed. The experimentally obtained frequency characteristics (Fig 7) and the amplitude-phase characteristic of this model (Fig 8) are compared with the calculated characteristics, and only a small error was found to have occurred. In conclusion, the characteristic of a real object is discussed, and the calculated and experimentally determined characteristics are shown in form of a diagram (Fig 9). There are 9 figures and 5 Soviet references.

This article was recommended for publication by the Kafedra teplovogo kontrolya i avtomatiki Moskovskogo energeticheskogo instituta (Chair for Temperature Control and Automation at the Moscow Institute of Power Engineering)

ASSOCIATION: Kafedra teplovogo kontrolya i avtomatiki Moskovskogo energeticheskogo instituta (Chair for Temperature Control and Automation at the Moscow Institute of Power Engineering)

SUBMITTED: May 26, 1958

Card 2/2

9(9)

307,161-11-1-22,27

AUTHOR:

Pletnev, G. P., Post-graduate Student (Moscow)

TITLE:

The Interpolation of the Frequency Characteristic of Regulated Objects Within the Range of Low Frequencies (Interpolyatsiya chastotnykh kharakteristik reguliruyemykh ob"yektov v oblasti infranizkikh chastot)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Elektromekhanika i avtomatika, 1958, Nr 3, pp 205 - 212 (USSR)

ABSTRACT:

In the introduction, the difficulties arising when plotting the frequency characteristic at low frequencies is described (structural scheme figure 1) and a formula of general applicability (1) is given, which is transformed for real systems in the form (3). By means of formula (2) the transmission function for low frequencies, in which delay is taken into account, is given (Fig 3). A diagram (Fig 3) shows a typical frequency characteristic, on the basis of which the calculation of formula (3) for various frequency ranges is dealt with in detail. For the special case of a linear phase-frequency characteristic the result obtained is then modified and for the purpose of obtaining the coefficients a nomograph is given (Fig 4). An electronic model was developed

Card 1/2

ILLEGIBLE

FLETNEV, G.P., kand. tekhn. nauk

Determination of the frequency characteristics of thermal systems.
Izv. vyzn. ucheb. zav. energ. 6 no. 7-12-69 J1 63. (MIRA 16-3)

2. Moskovskiy ordena Lenina energeticheskiy institut. Predstavlena
kafedroy teplovogo kontrolya i avtomatiki.
(Automatic control)

PLETNEV, G.P., inzh.

Semigraphical method for constructing the high-frequency
branch of amplitude-phase characteristics of thermal power
installations. Izv.vys.ucheb.zav.; energ. 3 no.6:127-129
Je '60. (MIRA 13:6)

1. Moskovskiy ordena Lenina energeticheskiy institut. Pred-
stavlena kafedroy teplovogo kontrolya i avtomatiki.
(Steam power plants--Electromechanical analogies)

NOSKOV, A.I., inzh.; PLETNEV, G.P., kand.tekhn.nauk; SKIRIDUSHEVSKIY, B.S., inzh.

Study of a block consisting of a TP-80 boiler and VPL-60 turbine in sharply varying mode of operation. Izv. vys. ucheb. zav.; energ. 7
no.8:53-57 Ag '64. (MIRA 17:12)

1. Moskovskiy ordena Lenina energeticheskiy institut.

PLETNEV, G.P., inzh.

Use of the frequency characteristics of a system for determining
the transportation time delay. Izv. vys. uchob. zav.; energ.
5 no.2:20-23 F '62. (MIRA 15:3)

1. Moskovskiy ordena Lenina energeticheskoy institut. Predstavlena
kafedroy teplovogo kontrolya i avtomatiki.
(Automatic control)

S/143/62/000/002/003/005
D238/D301

AUTHOR: Pletnev, G.P., Engineer

TITLE: Determining the transmission lag from the frequency characteristics of the system

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Energetika, no. 2, 1962, 20 - 23

TEXT: In automatic control-system analysis and in calculating the optimum controller settings the transmission lag is usually determined experimentally, employing the transient characteristic with an instantaneous step shift. This introduces difficulties under industrial conditions where fortuitous perturbations occur. A second method is described, involving indirect determination from the experimental frequency characteristics of the object or system. The phase-amplitude characteristic of an object possessing a lag is represented in the familiar form

$$W_0(1 \omega) = M(\omega) e^{-i(\varphi_0 + \omega \tau_0)} \quad (1)$$

Card 1/2

PLETNEV, Erik Panteleymonovich; SHCHETININ, V.D., red.; YERKHOVA,
Ye.A., tekhn. red.

[International migration of the labor force in the capitalist
system of world economy] Mezhdunarodnaia migratsiia rabochei sily
v kapitalisticheskoi sisteme mirovogo khoziaistva. Moskva, Izd-
vo IMO, 1962. 375 p. (MIRA 15:7)
(Emigration and immigration)
(Labor and laboring classes)

ZORIN, V.S., red.; PLETNEV, E.P., red.; YUDANOV, Yu.I., red.;
YEROKHOVA, Ye.A., tekhn. red.

["Common Market" is a tool of monopolies] "Obshchii rynok" -
orudie monopolii. Pod red. V.S.Zorina i E.P.Pletneva. Mo-
skva, Izd-vo IMO, 1963. 387 p. (MIRA 16:6)

1. Moscow. Institut mezhdunarodnykh otnosheniy.
(European Economic Community)
(Europe, Western--Trusts, Industrial)

PLETNEV, E.

In the ranks of fighters for peace and the rights of workers.
Vop.ekon. no.6:154-159 Je '56. (MLRA 9:8)
(France--Communism--Periodicals) (France--Economic conditions)

CP 4

Chromium plating cast iron. D. V. Petnev. *Khimiya i Metalurgiya*, No. 2, 45-7 (1941); *Chem. Zvesti.* 1943, 1, 1214. The work is degreased in gasoline and then mechanically burnished with fine chalk. The electrolyte used: CrO_3 , 150 g/l; H_2SO_4 , 1.5 g/l, c. d. 2.5 amp. sq. dm., bath temp. 68°. Time 2.5 hrs. for a Cr layer of 0.025-0.05 mm. Adhesion was good. M. Hartenheim

ASB-15-A METALLURGICAL LITERATURE CLASSIFICATION

RECORD 12

AL L S B D M H W J K N O P Q R S T U V X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DD DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HR HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NM NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TT TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UU UV UW UX UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VU VW VX VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WU WV WW WX WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XX XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YU YV YW YX YY YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW ZX ZY ZZ

4

4. Chromium plating of engine cylinders. A. A. Plotnev, *Aviatsionnyi Inzhener* 1940, No. 8, 5-11. The Cr-plated cylinders were used in tractor engines without any preliminary treatment. Mat deposits showed good adherence to the steel. The life of the coatings was not investigated.

ASME-SEA METALLURGICAL LITERATURE CLASSIFICATION

17

Dimensionally Accurate Hard Chromium Plating of Machine Parts.

D. V. Plotnuy, (Vestnik Metalloprumyashlenosti, 1940, No. 6, pp. 29-38). (In Russian). The hard chromium plating of internal or external cylindrical surfaces of parts suspended vertically in a chromium plating bath is considered. In order to obtain a deposit of uniform thickness over the whole of the surface, the anode must be closer to the cathode at the bottom of the bath than at the top. A formula for calculating anode-to-cathode distances is derived, and its use is demonstrated in several examples. The economic aspects of the process are considered.

CA

4

Replacing grinding of porous chromium by electrolytic finishing. D. A. Kikinev and V. N. Brusentsov. *Tekhnika i Teoriya* From 1951, No. 3, 15. Porous grinding of Cr coated valves was successfully replaced by anodic treatment. Following Cr plating the valves were treated anodically for 11 min. in an electrolyte containing CrO_3 , H_2SO_4 and H_2SO_3 (63 g/l at 20°C) and a d.c. of 15 amp. at 100 V. To remove the oxide films, at the beginning of anodic treatment, pulses of current 2-3 times greater than the normal current of 2.3 amp. (duration each, were applied. To carry out this process successfully the anodic treatment should follow immediately chrome plating without changing the position of the anode and the position of the rings. M. H. Ch.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001341200002-6

Platov, D. V. *Chromium Plating in the Manufacture of Wear-Resistant Machine Parts.* (In Russian.) Pp. 120. 1940. Moscow and Leningrad: Metallurgizdat. (5.50 Rbl.)

PIETLIV, D.V., ENG., BRUSEMTOVA, V.H., AG.

Chromium plating

Accelerated porous chromium plating. *Cent. stud.* 34, no. 2, 1972.

NO COPY LIST OF DISSEM ADDRESSES, 1972-1973, 1974-1975, 1976-1977.

PIKUNOV, G.V.

Osnovy tekhnologii iznosostoykogo koro-
mirovaniia (Principles of the technology of wear-
resistant chrome-plating). Moskva, Mashin, 1981. 164 p.

SO: Monthly List of Russian Acquisitions, Vol. 7, no. 8, August 1981.

PLETHEW, D. V. and BRUCENTSOVA, V. B.

"Rapid Porous Chromium Plating," *Vest. Mash.*, 14, No. 2, pp 37-41, 1952

Abstract - A-44434, 12 Aug 55

PLETNEV, D.V.

USSR/Miscellaneous - Book review

Card 1/1 Pub. 128 - 23/25

Authors : Garkunov, D. N.

Title : Book review

Periodical : Vest. mash. 1, 89-93, Jan 1955

Abstract : A review is presented of D. V. Pletnev, and V. N. Brusentsov's book, "Technological Principles of Resistant-to-Wear Chrome Plating", published by "Mashgiz" in 1953. The book describes the characteristics of electrolytic plating and theory and methods of resistant-to-wear chrome plating of machine components and tools. Table.

Institution :

Submitted :

PLETNEV, D.V., inzhener.

Electropolishing in oxalic acid electrolytes. Vest.nash.35
no.11:58 N '55. (MLRA 9:2)
(Polishing, Electrolytic)

PLETNEV, D.V., inzhener.

Reinforcing machine parts by means of wear-resisting and antifriction
plating techniques. Vest.mash.36 no.7:57-62 J1 '56. (MLRA 9:9)
(Plating)

PLETNEV, D. V.

~~CH~~ Electrolytic polishing in oxalic acid electrolytes. D. V. Pletnev. Vestnik Mashinostroeniya 35, No. 11, 68 (1956).

The strong tendency of oxalic acid to form stable complex compds. greatly reduces the diffusion speed of the reaction products from indentations in anodic surface and speeds it around projections. Only comparatively small amts. of the acid produce this effect. C steel can be properly polished in a soln. of 1-2% oxalic acid, 65% H_3PO_4 , and 18% H_2SO_4 used at 30-40 amp./sq. dm. for 10 min. at room temp. Other conventional solns., to which oxalic acid is added, serve equally well.

J. D. Gat.

pm

L 19023-63

ACCESSION NR: AP3006403

hour at 400C. "Engineer O. S. Lapshina took part in the experimental work."
Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 23Sep63

ENCL: 00

SUB CODE: IE, CH

NO REF SOV: 002

OTHER: 000

Card 2/2

L 19023-63

BDS/EWP(k)/EWP(q)/EWT(m)

AFFTC/ASD

Pf-4

JD

ACCESSION NR: AP3006403

S/0119/63/000/008/0021/0023

AUTHOR: Brusentsova, V. N.; Pletnev, D. V.

TITLE: Chemical nickel plating in oxalate solutions

SOURCE: Priborostroyeniye, no. 8, 1963, 21-23

TOPIC TAGS: nickel plating, chemical nickel plating, oxalate

ABSTRACT: Experiments are described with oxalate complexing agents used in acidic and alkaline nickel-plating cells. Effect of the bath temperature and pH on the deposition rate was investigated. The following optimum bath composition is recommended: 50 g/lit nickel sulfate, 150 g/lit ammonium oxalate, 40 g/lit sodium acetate, 72 g/lit sodium hypophosphite, and 60 mlit/lit 25% ammonia. Recommended temperature is 85-87C, pH = 8.2; the resulting rate of nickel deposition is 12 microns/hr. Due to 12-14% phosphorus content in the coating, its hardness is 550-575 kg/mm ; it can be raised to 950 kg/mm by heating one

Card 1/2

BRUSENTOVA, V.N.; PLETNEV, D.V.

Extrahard and bright nickel plating in oxalic acid electrolytes.
Priborostroenie no.2:19-21 F '63. (MIRA 16:5)
(Nickel plating)

PLETNEV, D.V.

2156. Rapid Porous Chromium Plating. D. V. Pletnev and
V. N. Buzulsova. *Heavy Metals*, Almaty, Transla-
tion no. 2953, 8 p. (From *Vestnik Mashinostroyeniya*, v. 32, no.
2, 1952, p. 37-40.)
Materials, equipment, and methods. Table, micrographs.

M 85

PLETNEV D.V.

1091* Electrical Polishing in Oxalic Acid Electrolytes. Elek-
tropolirovka v shchavolevokislolykh elektrolitakh. (Russian.)
D. V. Pletnev. Vestnik mashinostroeniia, v. 35, no. 11, Nov. 1966, p. 33. 62
Use of oxalic acid electrolytes for electro-polishing; comparison
with other types of reagents. Gives formula of composition and
optimal working ratio.

PLATNEV, D. V.

Poverkhnostno-poristoe khrumchenie. Tekhnicheskaya instruktsiya.
(Vestn. Mash., 1951, no. 2, p. 51-53; no. 3, p. 57-73)

Surface porous chrome plating. Technical instruction.

DLC: RHM:Vh

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

sodium or ammonium chloride - 2-3 g/l; ...

Card 1/2

High-hardness lustrous nickel plating in...

S/119/63/000/002/007/014

A004/A127

The optimum operation conditions are as follows: current density - 10-20 amp/dm², pH-value in the range of 7 - 10 (standard 7.8 - 8.2), electrolyte temperature 80 - 85°C (optimum 78 - 82°C), periodical alkalization by an ammonia solution of up to pH 8. The authors present a number of specific features of oxalic acid nickel plating and enumerate the advantages of this method in comparison with ordinary nickel-plating or chromium-plating baths. There are 3 figures.

Card 2/2

11E

CR

Is dieting necessary for sufferers from heart disease?
D. D. Pletnev. *Toproty Puaniya* 5, No. 4, 42 (1936).
The value of the Kattel milk diet is discussed.
E. H. Rahmann

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

PLETNEV, B. V.

95

8/089/62/013/006/019/027
B102/B186

AUTHORS: G. T. and M. R.

TITLE: Nauchnaya konferentsiya Moskovskogo inzhenerno-fizicheskogo instituta (Scientific Conference of the Moscow Engineering Physics Institute) 1962

PERIODICAL: Atomnaya energiya, v. 13, no. 6, 1962, 603 - 606

TEXT: The annual conference took place in May 1962 with more than 400 delegates participating. A review is given of these lectures that are assumed to be of interest for the readers of Atomnaya energiya. They are following: A. I. Leypunskiy, future of fast reactors; A. A. Vasil'yev, design of accelerators for superhigh energies; I. Ya. Pomeranchuk, analyticity, unitarity, and asymptotic behavior of strong interactions at high energies; A. B. Migdal, phenomenological theory for the many-body problem; Yu. D. Fizevskiy, deceleration of medium-energy antiprotons in matter; Yu. M. Kogan, Ya. A. Iosilevskiy, theory of the Mössbauer effect; M. I. Ryazanov, theory of ionisation losses in nonhomogeneous medium; Yu. B. Ivanov, A. A. Rukhadse, h-f conductivity of subcritical plasma;

Card 1/4

SERGEYEV, V.P.; PLETNEV, B.D.

Methodology of the organization of health education in the skin
and venereology dispensary. Zdrav.Ros.Feder. 3 no.9:23-26
S '59. (MIRA 12:11)

1. Iz Chuvashskogo respublikanskogo kozhno-venerologicheskogo
dispansera (glavnyy vrach V.P.Sergeyev).
(CHUVASHIA--PUBLIC HEALTH)

PLETNEV, B.D.; BUTAREVA, T.A.

Modified postepilatory treatment in fungus diseases. Vest. ven. i
derm. 30 no.4:53 J1-Ag '56. (MLRA 9:10)

1. Iz Chebaksarskogo respublikanskogo kozhno-venerologicheskogo
dispansera.

(SCALP--DISEASES) (HAIR, REMOVAL OF)

SERGEYEV, V. P.; PLETNEV, B. D.

Diagnostic problems in microsporosis caused by *Microsporum ferrugineum*.
Vest. dermat. i ven. 34 no.1:28-29 Ja '60. (MIRA 14:12)

1. Iz Cheboksarskogo respublikanskogo kozhno-venerologicheskogo
dispansera (glavnyy vrach V. P. Sergeyev).

(MICROSPORUM)

SERGEYEV, V.P.; PLETNEV, B.D.; LAPTENKOV, K.T.

Individual packet for first aid in minor skin injuries. Vrach.delo
no.11:1211 N '59. (MIRA 13:4)

1. Cheboksarskiy respublikanskiy kozhno-venerologicheskiy dispanser
Ministerstva zdravookhraneniya Chuvashskoy ASSR.
(FIRST AID IN ILLNESS AND INJURY)

11E

CA

A new biological test for vitamin A. A. V. Pietnev. *J. Physiol. U. S. S. R.* 23, 791-6 (in English 790) (1937).--
 When the vitamin A (I) content of the diet of chicks is varied changes take place in the function of the visual receptor and in the photo-orientated movements of the chicks toward red and blue filters. A decrease in I causes an increase in orientations toward a red filter. The normal percentage of orientations toward the blue (50%) is maintained if the chicks receive 0.24 g. of carrots (0.020 mg. carotene) daily. This amt. is called "1 chick unit," which protects chicks against A avitaminosis to the age of 2 months. The test can be made in 7-12 days if the chicks are placed on the diet to be investigated on the second day after hatching. S. A. Karjala

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

11E

12

64

Estimating vitamin A in grain foods. S. A. Plotney.
 Crystal P. A. S. R. 23, 1960. Non-English. 10 p. (1960)
 The unit of vitamin A in "chick units" in oats, barley,
 wheat, yellow corn and millet is 0.0, 0.3, 0.0, more than
 3.0 and more than 3.0, resp., as detd. by photo-orienta-
 tion of chicks to red and blue filters. S. A. Karala.

MOSKALEV, N. A., PLET'EV, A. V.

Forest Nurseries

Planting the green ash before inundation, Les i step' No.3, 1952

Monthly List of Russian Accessions, Library of Congress, July 1952.
Unclassified.

PLETNEV, A. V.

The theory of I.P. Pavlov and the practice of animal husbandry Moskva, Izdanie,
1954. 29 p. Vsesoluznoe obshchestvo po rasprostraneniю politicheskikh i
nauchnykh znaniy. Seriya 3, no. 16.

1. Pavlov, Ivan Petrovich, 1849-1946.

2. Stock and stock- breeding.

1. PRIZIN, A. V. : SOVDZHEMOTIA, S. P.
2. SOVDZHEMOTIA, S. P.
4. Reflexes; Rnd d'antia
7. Dominant reflexes of domestic mammals. Dohl.
AN BSSR C. No. 3, 1953. Chuvstvennoye yz-
ystvennyy Institute, Chelovek. No. 10 May. 1951.
9. No title List of Reflexes Accepted. List of Congress,
September 1952. UNCLASSIFIED.

ELSTNEV, A. V.

1962. Ucheniya I. P. Pavlova i praktika zhivotovodstva. Kazan', 1962. 28 s. 22 sm.
(M. Vo Kuz'turny iater. SSSR. Kess. lekttsionnaya (grupa). 1,000 ekz. Rasch. -'a tatar.
vaz.-(5B-56737) 636+619:612

SO: Knizhnaya, Letovis, Vol. 1, 1956

USSR / Farm Animals. General Problems.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 7265

Author : Plotnev, A. V.

Inst : AS USSR

Title : Conditioned Food Reflexes and Standardized Feeding of Farm Animals

Orig Pub : V. sb.: Vopr. fiziol. s.-kh. zhivotnykh. M.-L., AN SSSR, 1957, 40-43

Abstract : Utilizing earlier developed methods of masticatory reflexes, various foods were tested on rams and cows. The magnitude of the masticatory reflex in rams proved to be as follows: 17.7 mastications for sunflower oil cakes; 18.5 for moistened wheat bran; 19 for oat grain; 19.5 for wheat grain; 19.7 for fo-

Card 1/2

USSR / Farm Animals. General Problems.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 7265

Author : Plotnev, A. V.
Inst : AS USSR
Title : Conditioned Food Reflexes and Standardized Feeding of Farm Animals

Orig Pub : V. sb.: Vopr. fiziol. s.-kh. zhivotnykh.
M.-L., AN SSSR, 1957, 40-43

Abstract : Utilizing earlier developed methods of masticatory reflexes, various feeds were tested on rams and cows. The magnitude of the masticatory reflex in rams proved to be as follows: 17.7 mastications for sunflower oil cakes; 18.5 for moistened wheat bran; 19 for oat grain; 19.5 for wheat grain; 19.7 for fo-

Card 1/2

FAYERMAN, G.P.: ~~PLETNEV, A.P.~~

Study of the speeds of the reduction of silver bromide and of silver salts of the photographic stabilizers. Usp. nauch. fot. vol.5:114-126 (MLRA 10:6)
'57.
(Photographic chemistry) (Silver bromide) (Silver salts)

3/187/61/000/010/001/007
 D053/D113

The type 6-35 magnetic tape

The type 6 magnetic powder contained in the ferromagnetic suspension is made of α -FeOOH which is processed into γ -ferric oxide. The grains are acicular, 0.2 μ long, and have a length to crossover ratio of 2.7:1. The performance of the new 6-35 type magnetic tape was investigated and the obtained operating characteristics were compared with those of the "Gevascnor T-200", 2-35, 4-35, C-1 54-4558 (S-1 54-4558) (standard) tapes, and with the tape produced by the "Piral" firm. [Abstracter's note: the name is given in Russian transliteration]. The basic electroacoustical characteristics of Soviet magnetic tapes are compiled in Table 2. It can be seen that the type 4-35 and 6-35 tapes have similar electroacoustical characteristics except that the demagnetizability index of the former is 4.5 db less than that of the latter. A comparison of the amplitude characteristics, remanence variations and the coercivity of these tapes showed that (1) the cobalt-free 6-35 magnetic tape possesses a better demagnetizability than cobalt-containing 2-35 and 4-35 tapes, especially with the elapse of time; (2) the optimum value of the high-frequency bias current and the value of the recording current required for obtaining a given magnetization level were reduced in the 6-35 tape; and (3) the basic characteristics of the 6-35 tape remain practically

9.7910
AUTHORS:

28576
3/187/61/000/010/001/007
D053/D113
Nazarov, S.Kh., Korzhukov, N.G., Plotnev, A.P., and Yankovskiy, O.N.

TITLE:

The type 6-35 magnetic tape
PERIODICAL: Tekhnika kino i televideniya, no. 10, 1961. 7-11

TEXT: The authors describe the manufacturing process of the type 6-35 magnetic tape and compare its operating characteristics with those of other types of tape. Unlike other Soviet-produced tapes, this perforated 35-mm tape has a ferromagnetic coating made of γ -ferric oxide without an admixture of cobalt compounds. It was jointly developed in 1960 by the Shostkinskiy filial MIKFI (Shostka Branch of the MIKFI), the Shostkinskiy khimzavod (Shostka Chemical Plant) and the VMAIZ. The film for the tape is made of CBX-40 (SVKh-40) synthetic resin, which is a copolymer of vinyl chloride and vinylidene chloride, with aromatic hydrocarbons and ketones as solvents. The film is then coated with a ferromagnetic suspension on a special MP-400 (MP-400) machine designed and built in 1960 by the Shostka Chemical Plant.

Card 1/1 3

PLETNEV, A. A.

PLETNEV, A. A. - inzh i, GALITSKIY, B. M. - inzh.

Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii i mekhanizatsii
stroitel'stva (VNIOMIS)

Razrabotka sposobov mekhanizirovannogo bezotkhodnogo gasheniya izvesti

Page 104

SO: Collection of Annotations of Scientific Research Work on Construction, completed
in 1950, Moscow, 1951

PLETNEV, A., inzh.; IOFFE, A., starshiy nauchnyy sotrudnik

Investigating binding and wall materials from the Nal'chik volcanic ashes. Sbor. nauch. soob. NIIsel'stroia no.2:78-87 '60. (MIRA 15:5)

(Nal'chik region--Volcanic ash, tuff, etc.)
(Construction materials)

PLETNEV, PROF

76T55

USSR/Medicine - Nerves, Optic
Medicine - Nervous System

May/Jun 1948

"Review of 'Chief Forms of Variations in the Optic
Nerve,' by Academician M. I. Averbakh," Prof Pletnev,
1 p

"Vest Oftalmol" Vol XXVII, No 3

This monograph published in 1946 is valuable addition
to medical bibliography. It is poorly organized,
however, and the arrangement of diagrams is incon-
sistent with the text.

FDB

76T55

PLETNER, Yuriy Viktorovich; FLIGEL'MAN, S.R.

[Father of Russian chemistry]Dedushka russkoi khimii.
Kalinin, Kalininskoe bol.knizhnoe izd-vo, 1959. 45 p.
(MIRA 15:8)
(Voskresenskii, Aleksandr Abramovich, 1808-1880)

BYKOVA, Ye.I. (gorod Kalinin); PLETNER, Yu.V. (gorod Kalinin)

Use of dry ice during lessons of chemistry. Khim.v shkole 10 no.2:
45-46 Br-Ap '55. (MLRA 6:7)
(Dry Ice)

PLETNER, Yu. V.
BYKOVA, Ye. I.; *PLETNER, Yu. V.* (Kalinin)

Excursion to a silicate-brick plant. Khim. v shkole 9 no. 5:41-44
S-O '54. (MIRA 7:9)
(Bricks) (School excursions)

PLETNER, Yu.V.(Kalinin)

Teaching methods of solving chemical calculation problems. Khim. v
shkole 12 no.1:35-44 Ja-F '57. (MLRA 10:34)
(Chemistry--Problems, exercises, etc.)

1. BORODIN, A. I., MALINOVSKII, V. S., ELIOT, YU. V., ATKINSON, T. I.
2. USSR (600)
4. Chemistry - Study and Teaching
7. Home-made visual aids for chemistry, Edin. v shkole, no. 1, 1951.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

PLETNER, Yu.V.

"Chemistry laboratory of the secondary school." L.A. Dubynin. Reviewed by IU.V. Pletner. Khim. v shkole 11 no.1:73-74 Ja-F '56.
(Chemical Laboratories) (Dubynin, L.A.) (MLRA 9:2)

PIATNEN, Yu. V.

Chemistry - Study and Teaching

Practices of a methodological association. Khim. v. Nikola, no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1958. Unclassified.

PLETNER, Yu.V. (Kalinin)

Qualitative chemistry problems in the secondary school course. Khim.
v shkole. no.2:25-34 Mr-Apr '58. (MIRA 11:3)
(Chemistry, Analytic--Qualitative)

PLETNER, Yu. V.
PLETNER, Yu. V. (Kalinin)

Experimental proof of oxygen being heavier than air. Khim.v
shkole 12 no.6:52 N. 157 (MIRA 10:12)
(Oxygen)

P. 1000, 101
PLETNER, Yu.V. (Kalinin)

Experiments in the chemistry of metals ("Techniques and methods of chemical experiments on the subject 'metals' in highschools") by E.A.Agakhanians and V.A.Agakhanians. Reviewed by IU.V.Pletner. (MIRA 10:10)
Khim.v shkole 12 no.5:78-79 S-O '57.
(Chemistry--Experiments) (Metals) (Agakhanians, E.A.)
(Agakhanians, V.A.)

SHELINSKIY, G.I., kand.ped.nauk(Leningrad); KROTKOV, V.V.; PLETNER,
Yu.V.

Useful, but poorly written book ("Chemistry made interesting"
by I.I.Zaikovskii. Reviewed by G.I.Shelinskii, V.V.Krotkov,
IU.V.Pletner). Khim.v shkole 14 no.5:84-87 S-0 '59.
(MIRA 12:12)

1. Mariyskiy pedagogicheskiy institut, g.Yoshkar-Ola
(for Krotkov). 2. Kalininskiy pedagogicheskiy institut
(for Pletner).
(Chemistry--Study and teaching)
(Zaikovskii, I.I.)

PLETNER, Yu.V.

Aleksandr Abramovich Voskresenski. Khim.v shkole 14 no.5:
19-24 S-0 '59. (MIRA 12:12)

1. Kalininskiy pedagogicheskiy institut.
(Voskresenski, Aleksandr Abramovich, 1808-1880)

BYKOVA, Ye.I.; PLENNIK, Yu.V. (G. Kalinin)

Optional chemistry course. Khim. v shkole 14 no.1:86-82 Ja-F '59.
(MIRA 12:2)

(Chemistry--Study and teaching)

PLETNER, Yu.

"Pedagogical lectures" of chemistry teachers in Kalinin Province.
Khim. v shkole 13 no.4:80 JI-Ag '58. (MIRA 11:6)
(Kalinin Province--Chemistry--Study and teaching)

PLETNER, Yu. V.

USSR/General Problems.

A-

Abs Jour : Ref Zhur - Khimiya, No 10, 1957, 33416

Author : Pletner, Yu.V.

Inst :

Title : To the Methodic of Instruction of Solving Calculation Problems in Chemistry.

Orig Pub : Khimiya v Shkole, 1957, No 1, 35-44.

Abstract : No abstract.

Card 1/1

PLETNER, N. Kh.: Master Med Sci (diss) -- "Experience in using antibacterial preparations combined with tuberculin in experimental tuberculosis and in patients with certain forms of tuberculosis of the lungs and lymphatic nodes". Moscow, 1958. 15 pp (Min Health USSR, Central Inst for the Advanced Training of Physicians), 200 copies (KL, No 2, 1959, 139)

PLETNER, N. Kh.; LIBENSON, V.S.; SUMBATOV, G.A.

Some manifestations of hyperfunction of the pituitary-adrenal system in tuberculosis patients following antibacterial therapy. Probl. tub. 41 no.3:79-80'63. (MIRA 16:9)

1. Iz Kafery tuberkuleza (zav. - prof. A.Ye. Rabukhin) Tsentral'nogo instituta usovershenstvovaniya vrachey i 3-y gorodskoy klinicheskoy tuberkuleznoy bol'nitsy "Zakhar'ino (glavnyy vrach V.P.Petrik, nauchnyy rukovoditel' prof. F.I.Levitin), Moskva.

(PITUITARY GLAND--DISEASES)
(ADRENAL CORTEX--DISEASES) (TUBERCULOSIS)
(CHEMOTHERAPY)

PLETNER, N.Kh.; NEZLIN, S.Ye. (Moskva)

Work capacity of patients with pulmonary tuberculosis.
Klin. med. 40 no.12:42-48 D '62. (MIRA 17:2)

1. Iz TSentral'nogo instituta ekspertizy trudosposobnosti
i organizatsii truda invalidov (dir. - prof. D.I. Gritskevich)
Ministerstva sotsial'nogo obespecheniya RSFSR.

SAK-SHAK, B.A., kand. tekhn. nauk; FISHELEVA, L.S.; PLETNER, D.Yu.

Area of economic expediency for the use of multiple machining.
Mashinostroitel' no.10:37-38 0 '65. (MIRA 18:10)

PIETMENTSEVA, T.

Oak

"Effect of intensive tree felling on the quality of young oak trees. Les khov. 5, No. (43)
1952

9. Monthly List of Russian Accessions, Library of Congress, August 1952, Unclassified.

PLETMINTSEV, V. (g.Stalino)

From shavings and sawdust. Prom. koop. 12 no.7:29-30 J1 '58.
(MIRA 11:8)

1.Glavnyy inzhener tresta "Stalinstroykeramika."
(Wood waste)

PLETMINTSEV, V.; SIDORENKOVA, I.

Electrothermal stressing of high-strength wire. Bud.mat.i
konstr. 2 no.1:18-21 F '60. (MIRA 13:6)

1. Nachal'nik sektora stroitel'noy industrii Dinetskogo
nauchno-issledovatel'skogo instituta nadshakhtnogo stroitel'-
stva (for Pletmintsev). 2. Starshiy inzhener sektora
stroyindustrii Donetskogo nauchno-issledovatel'skogo instituta
nadshakhtnogo stroitel'stva (for Sidorenkova).
(Electric heating) (Prestressed concrete)

AL'TSHULER, N.S.; LITOVCHENKO, O.V.; YUKELIS, I.I.; DUBOVSKOY, P.A.;
PLETITSYNA, T.G.; BAGNOVA, M.D.; KOZEL'SKAYA, I.A.

Dynamics of tuberculosis of the skin in children in 1921-1954.
Vest.derm.i ven. 33 no.6:23-29 N-D '59. (MIRA 13812)
(SKIN--TUBERCULOSIS)

ILLEGIBLE

S/137/61/000/008/021/037
A060/A101

AUTHOR: Pleštil, Arnošt

TITLE: Apparatus for continuous induction heating in a hydrogen environment

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 8, 1961, 49, abstract 8 E 334
(Czechoslovak patent no. 94877, 15. 04. 60)

TEXT: A chamber filled with hydrogen and having inside an inductor for heating articles is proposed. The chamber is equipped with channels for input and output of the articles, and also with a connection for liquid-cooling of the channel. Due to the fact that the input and output ends of the channels are below the level of the lowest point of the inside space of the chamber, the H_2 inside the chamber and the channels is not expelled by the air entering with the parts and thus effectively protects the parts from oxidation. In this connection the H_2 expenditure is minimal (only used up in the reduction of oxides formed on the articles), and a pressure of 0.01 kg/cm^2 is sufficient for replenishing it.

Ye. Greyt'

[Abstracter's note: Complete translation]

Card 1/1

PIETIKAPIC, Zivko, inz.

Lipovljani, a new petroleum and gas field in the Sava River depression.
Nafta Jug 15 no.6:173-182 Jo 1964.

1. Naftaplin Enterprise, Zagreb.

PLETIKAPIC, Zivko

Composition of the Sava River depression in the area between the Moslavina and Zrinska Gora Mountains; with 3 illustrations in the enclosure. Geol vjes Hrv 13:121-121 '59 (published '60).

(EEAI 10:4)

1. "Naftaplin," Zagreb, Kuniciceva 5.
(Croatia--Geology)

PLETIKAPIC, Zivko, inz.

Ferdinandovac, a new oil and gas field in the Drava River Valley.
Nafta Jug 13 no.6:115-120 Je '62.

1. Naftaplín, Zagreb.

ILLEGIBLE

PLETIKAPIC, Zivko, inz.

Evaluation of the Lipovljani oil and gas deposits. Nafta Jug
14 no.1:4-16 Ja '63.

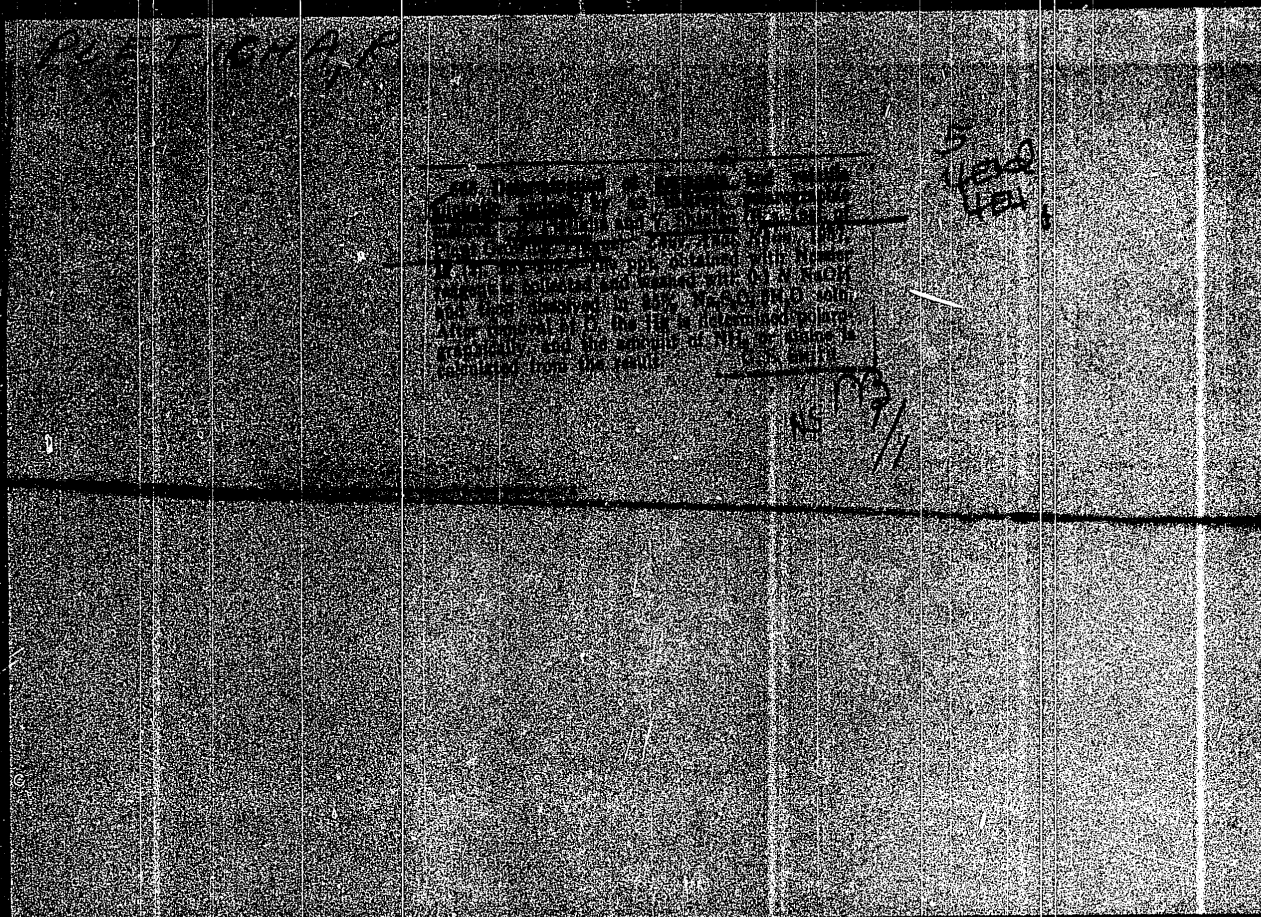
1. Institut "Naftaplina", Zagreb.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001341200002-6

CONFIDENTIAL, ZS-10, 10/16

The above information was obtained from the files of the
Director of Central Intelligence, Washington, D.C., 20505.

It is requested that you keep this information confidential.



PLANT R
 1
 Determination of boron in plant ash. J. P. Feltz
 (University of California, Davis, Calif.) Phytochemistry 11: 1057-1067 (1968). A simple method is described by using the soln. method with C electrodes. The electrodes are etched by heating in an Fe block to 108°. Then appropriate concns. of Na₂B₄O₇ solns. are added to the C with a Pt loop. An arc or a condensed spark is used as an emission source. Photometric detns. are carried out by using the chief detection spectral lines for B of 2496.778 Å and 2497.733 Å. A line (not too far from the B line), suitable for Ni, is used as an internal standard. Conditions for producing calibration spectrograms are given with H₂BO₃ and Na₂B₄O₇ solns. with concns. of 0.001-0.06% B. In the actual application to plant ash, 0.1 g. samples were mixed with 1.8 ml. dild. HCl(1:3) and 0.2 ml. 8% NiSO₄ soln. 87 references.

RM mt

PLETICHA R.

✓ 3498. The use of nitrilotriacetic acid (Complexone I) in the polarographic determination of trace elements in the ash of plants. R. Pleticha (Porsch. Inst. f. Pflanzenprodukt., Prague-Krusyne, Czechoslovakia). *Pharmazie*, 1957, 12 (3), 131-135.—A soln. of nitrilotriacetic acid (0.4 g) in 12.5% aq. NH₄ (10 ml) is used as supporting electrolyte for the polarographic determination of Cu, Zn and Fe present as trace elements in plant ash. The only preliminary treatment required is the removal of silicate. The method of standard additions is used for the calculation of concn. from wave heights. In suitable cases, Pb, Sb, Ti, Cd and Bi can also be determined.
A. R. ROSS

Pietrich A, R

[illegible]

01

PLETIKHA, R.

USSR

Polarographic determination of nitrates and nitrites in meat
salt and brine for pickling meat. R. Pletikha and E. D.
Kraizhova. *J. Anal. Chem. U.S.S.R.* 9, 407-13 (1964)
(Engl. translation).--See C.A. 49, 4600a. H. L. H.

10

PLETIKHA, R.

USSR.

Polarographic determination of nitrites and nitrates in the salt and brine for pickling meat. R. Pletikha and E. Krizhnikova (Research Inst. Food Technology, Leningrad). *Zhur. Anal. Khim.* 9, 880-72 (1954).--Nitrates are detd. in a soln. contg. uranyl acetate. Nitrites in rapid pickling solns. are detd. in a soln. contg. glacial AcOH. To det. NO_2^- in meat-pickling salt a soln. contg. $10^{-4}M$ KCl, $10^{-4}M$ HCl, and $2 \times 10^{-4}M$ UO_2Ac_2 is used. To this soln. is added a similar one but contg. in addn. $10^{-4}M$ KNO_3 , and a polarographic calibration curve is obtained at -1 v. Then to the auxiliary electrolyte soln. a 1% soln. of the analyzed salt is added and a polarographic curve is obtained which is compared with the calibration curve. To det. NO_3^- in a sample of "Pragunda" (rapid pickling salt) 5 ml. of 10% AcOH is placed in the cell and N is passed through it. To it is added 1 ml. of 10% soln. of "Pragunda" freed of O, the mixt. is carefully stirred with a glass rod, and a polarographic curve is produced starting at -0.6 v. Next 0.5 ml. of $10^{-4}M$ NaNO_3 (standardized) freed of O is added, and a new curve is obtained for comparison. In analyzing red pickling brines, i.e., brines which were in use, proteins derived from meat are pptd. with EtOH . In analyzing red brines for NO_3^- , the proteins are pptd. by the AcOH used in analysis. After the NO_3^- is detd., an inert gas is passed through the soln. to remove N oxides, then UO_2Ac_2 soln. is added and the soln. analyzed for NO_2^- . M. Hosh...

Plotnikova, R.

Polarographic determination of nitrates and nitrites in salt and meat-pickling salt. R. Plotnikova and E. Krasheva (Zh. anal. Khim. SSSR, 1954, 9, 368-372).—Nitrates and nitrites in pickling salts not containing sugars and proteins are determined by Kolthoff's polarographic method but with uranyl acetate in place of the chlorides. In presence of sugars, nitrites are determined in acetic acid solution, without addition of uranyl acetate, from the height of the wave corresponding to reduction of oxides of nitrogen which begins at -0.8 v. with reference to the saturated calomel electrode. In presence of proteins a preliminary separation with alcohol is necessary before a nitrate determination by the uranyl method. The use of alcohol is unnecessary in the determination of nitrites by the acetic acid method.

G. S. SMITH.

(1)

PLETICHA, R.

\ Oscillographic (and) polarographic studies on vitamin B₁₂
in alkaline solution. R. Pleticha (Polarographic Central
Inst., Prague). *Pharm. Zentralhalle* 92, 395-402, 435-9
(1953).—See C.A. 48, 3810g. Nathan Levin—

PLETICHA, ROMAN

Chemical Abst.
Vol. 48
Apr. 10, 1954
Electrochemistry

(3)
Oscillographic-polarographic study of vitamin B₁ in alkaline solution. Roman Pleticha (Výzk. ústav potravinářské technol., Prague, Czech.). Chem. Listy 47, 806-16 (1953).—The depolarizing effects of thiamin in alk. solns. show that its behavior is similar to that of other compds. contg. —SH, —S—S—, and —S— groups. The polarographic anodic wave at $\epsilon_{0.4}$ -0.2 v. is of adsorption character; the no. of moles adsorbed on unit surface of Hg is evaluated from the limiting current. By investigation of the characteristic anodic wave at $\epsilon_{0.4}$ -0.41 v., the depolarization effect is verified based on the reaction of the SH group with the anodically formed Hg₂⁺⁺ ions giving an ins l. salt. On the surface of the cathodically polarized Hg drop this compd. remains insol. in dil. alk. soln. and causes the reversible cathodic wave. In stronger alk. soln. another, more protracted, cathodic wave at -1 v. is observed; this is probably due to the slow, irreversible but direct reduction of the disulfide form of thiamin to the thiol form. At higher temp., a new third anodic wave at $\epsilon_{0.4}$ -0.74 v. is reported.
B. Erdős

RH

PLETICHA, Roman

Chemical Abst.
Vol. 48
Apr. 10, 1954
Electrochemistry

② 7
Oscillographic-polarographic study of diacetyl. Roman Pleticha (Ústřední ústav Polarograf., Prague, Czech.). *Chem. Listy* 47, 43-8(1953).—The oscillographic depolarization of diacetyl solns. was investigated; the $i-t$ curves had the shape of $1/4$ parabolas; by means of a dropping and streaming Hg electrodes, the influences on the curves $\pi - t$, $dV/dt = f(t)$, and $dV/dt = f(V)$ of pH, temp., deformable ions, and capacity depolarizators were studied. The reduction of diacetyl was irreversible. It was concluded that the reduction of free mols. of diacetyl took place with simultaneous reception of 2 electrons; the probable reduction product was the unstable but oscillographically active 2-butene-2,3-diol which was deactivated to acetoin. The reduction of another form of diacetyl (which was reduced at more neg. potentials) was discussed.

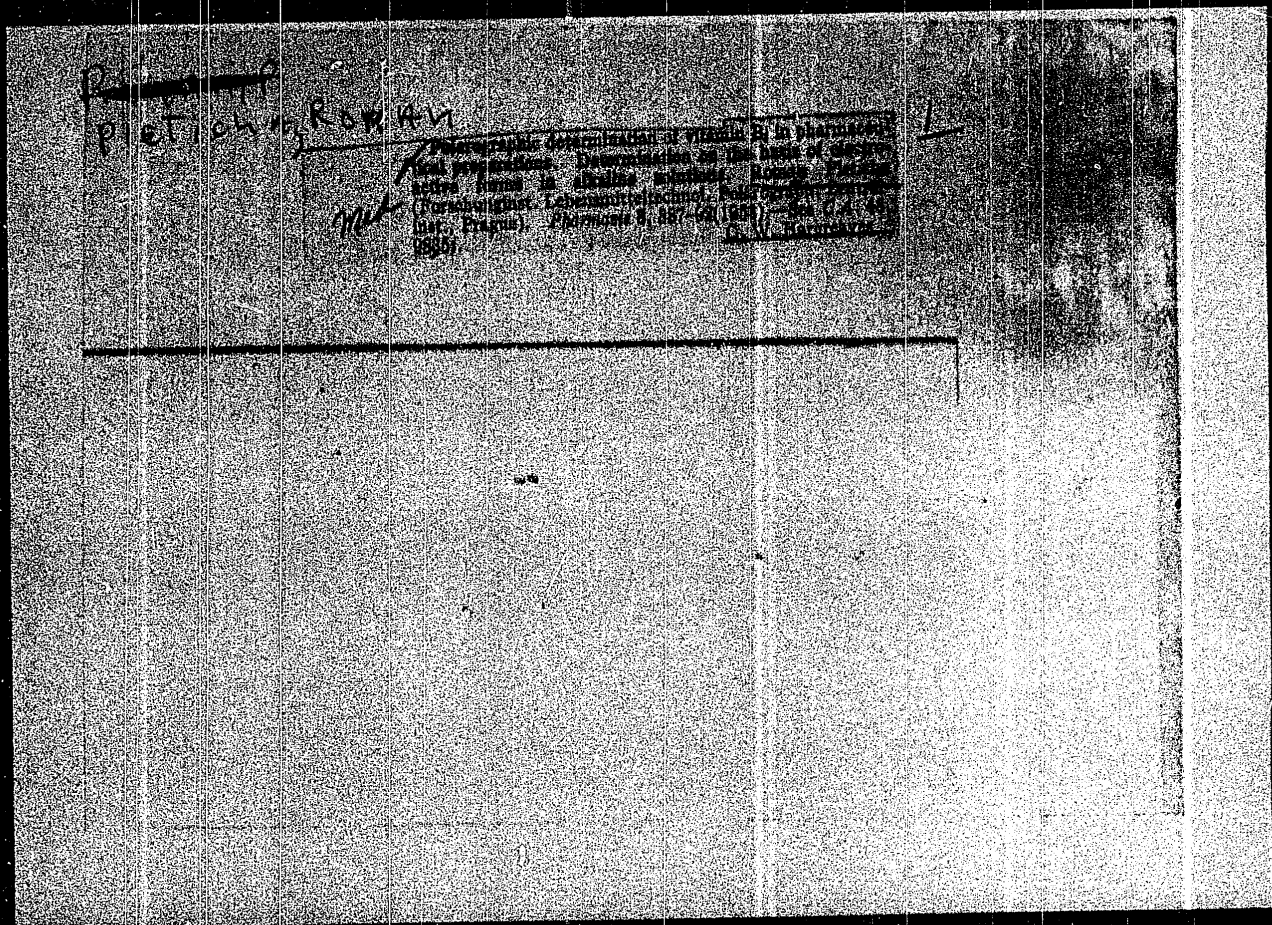
E. Brdka

PLETICHA, R

Reaction of potassium bismuth(III) iodide with several vitamins and antibiotics. Indirect polarographic determination of thiamine. R. Pleticha (Czech Acad. Sci., Prague). *Pharmazie* 8: 987-9 (1953). Several vitamins and antibiotics were pptd. from pure aq. solns. with the help of the complex anion BiI_4^- ; the conditions for polarographic analytical application of this reaction were detd. One such method was indirect detn. of Bi by soln. in K Na tartrate of thiamine-HCl pptd. by BiI_4KI , and restoration of the anodic polarographic waves of one ion. Since BiI_4KI reacts with many different org. compds., the proposed method may sometimes have to be modified. Because the reaction is not specific, only pure substances may be used, thus in medicine only the simplest preps. (e.g., concd. in-

jectables but not tablets, in which starch or sugar admixtures interfere).

G. M. Hocking



PLETICHA, R

CZECH

763. Polarographic determination of nitrites and nitrates in meat-pickling solutions. R. Pleticha and E. Křiváková (*Průmysl Potravin*, 1953, 4 [9], 333-335; *Referativnyi Zh., Khim.*, 1954, Abstr. No.

10,819).—For the determination of nitrate, the method of Kolthoff *et al.* (*J. Amer. Chem. Soc.*, 1944, 66, 1782) is used. A soln. containing 1 per cent. of the sample together with KCl (0.1 M), HCl (0.01 M) and uranyl acetate (0.0002 M) is polarographed at -1 V. A soln. of KNO₃ (0.001 M) is used to prepare a calibration curve. For the determination of nitrite, 9 ml of 10 per cent. acetic acid soln. are placed in the cell and nitrogen is blown through. One ml of a 10 per cent. soln. of the sample, freed from atmospheric oxygen, is then added; the soln. is mixed and then polarographed at -0.6 V, the addition method being used. When nitrate is being determined in spent soln., proteins must first be precipitated with ethanol and then removed by filtration. In the nitrite determination on spent soln., the proteins are pptd. by acetic acid and the use of ethanol is unnecessary.

R. HAYES

PLETICHA, R.

②
Polarographic determination of vitamin B₁ in pharmaceuticals. Determination on the basis of electroactive forms in alkaline medium. R. Pleticha (Czech. Acad. Sci., Prague), *Ceskoslov. farm.* 2, 149-53 (1953). — Except for the thiol form of thiamine, resulting at pH > 9 and giving a characteristic anode wave at -0.4 v., various other electroactive forms appeared in alk. solns. In 0.1N NaOH it was observed that: (1) There was an unspecific anodic adsorption forewave, $\tau/2 = -0.2$ v., on the anodic wave of the thiol form. (2) There was a cathodic reduction wave of the —S—S— form of thiamine. (3) The anodic wave shifted to the cathodic side after longer standing of alk. solns. of thiamine. The new wave was produced probably by the reduction of Hg of the insol. deposit on the dropping Hg electrode. (4) A polarographically inactive —S— form (thiochrome) resulted at pH over 10, which decompd. to —SH form in 0.1N NaOH after about 10 min., in 1.25N NaOH after 30 min. In 1.25N NaOH only an anodic wave at -0.4 v. and a cathodic wave at -1 v. resulted. The height of the anodic wave depended linearly on the thiamine concn. ($2.17 \times 10^{-4} - 4 \times 10^{-4}$ M), the cathodic wave not varying considerably. In analytical estn., the total anodic and cathodic current increase in the potential range from -0.2 v. to -1.2 v. was measured. The accuracy of the method was $\pm 3\%$. Previous bubbling with N to decolorize was necessary. D. Hubiková—

RM
11-23-54

Pletikha, R.

Polarographic determination of vitamin B₁ in pharmaceuticals. Determination on the basis of electroactive forms in alkaline medium. R. Pletikha (Czech. Acad. Sci., Prague). *Českoslov. farm.* 27: 199-201 (1960). Except for the thiol form of thiamine, resulting at pH > 9 and giving a characteristic anodic wave at -0.4 v., various other electroactive forms appeared in alk. solns. In 0.1N NaOH it was observed that: (1) There was an unspecific anodic adsorption forewave, $\tau/2 = -0.3$ v., on the anodic wave of the thiol form. (2) There was a cathodic reduction wave of the -S-S- form of thiamine. (3) The anodic wave shifted to the cathodic side after longer standing of alk. solns. of thiamine. The new wave was produced probably by the reduction of Hg of the insol. deposit on the dropping Hg electrode. (4) A polarographically inactive -S- form (thiochrome) resulted at pH over 10, which decompd. to -SH form in 0.1N NaOH after about 10 min., in 1.25N NaOH after 30 min. In 1.25N NaOH only an anodic wave at -0.4 v. and a cathodic wave at -1 v. resulted. The height of the anodic wave depended linearly on the thiamine concn. ($2.17 \times 10^{-4} - 4 \times 10^{-4} M$), the cathodic wave not varying considerably. In analytical estn., the total anodic and cathodic current increase in the potential range from -0.2 v. to -1.2 v. was measured. The accuracy of the method was $\pm 3\%$. Previous bubbling with N to decolorize was necessary. D. Hubíkova

PLETICHA, R.

24(2,4)

PHASE I BOOK EXPLOITATION CZECH 2433
International Polarographic Congress. 1st, Prague, 1951

Sborník I. Mezinárodního polarografického kongresu. 1st, Prague, 1951
Referaty přednesené na sjezdu, předloženy. Díl 3: Hlavní
Read at the Congress. Praha, Přírodovědecké vydání [1951]
774 p. 2,000 copies printed.

Resp. Ed.: Jiří Koryta, Doctor; Chief Ed. of Publishing House:
Milan Skalník, Doctor; Tech. Ed.: Oldřich Duka.
PURPOSE: The book is intended for chemists, chemical engineers,
and physicists.

COVERAGE: The book is a collection of reviews and original papers
read at the International Polarographic Congress. It contains
in 1951. Uses of polarography in organic and inorganic chemistry,
biology, medicine, agronomy in organic and inorganic chemistry,
in other sections. Reviews of industrial chemistry, analytical
presented. Each of the sections, Original papers read at the
only these translations in Russian. Original papers read at the
have not been published in Russian, German, and Polish.
Following the section, Original papers read at the Congress,
Congress. Participants in the opening of the Congress, the
of Sciences, Professor Viktor Kargin, Dean of the Faculty
of Planning; Professor Doctor Jaroslav Kocumsky, Minister
of Congress; and Professor Jaroslav Kocumsky, Chairman of
Development. References follow each paper.

Šunka, J., Polarographic Study of the Degradation of Glucose by Alkalies [Russian Translation] [German Translation]	517 518 519
Zuman, P., Reactions of Carbonyl Compounds with Primary Amines	520
Suchý, J., Polarographic Determination of Cyanuric Acid, Cyanamide, and Rubenhydride [Russian Translation] [German Translation]	520 521 522
Pleticha, R., Some Complexes of Amino Acids with Metals [Russian Translation] [German Translation]	523 524 525
Roussel, J., and J. Zareval, Polarographic Determination of Fluoride in Water and Urine [Russian Translation]	526
Pozdnyakov, R., Use of Polarography for the Determination of Pentosan in Cellulose Card 8/14	542 543
Pleticha, R., Determination of Diacetyl [Russian Translation] [German Translation]	546 547 548

Analytical Chemistry
7

CA

Polarographic study of bisacetyl 1. Roman Pleticha
(Central Polarographic Inst., Prague, Czech.) *Chem.
Listy* 46, 69-72 (1952). Ac₂ forms 1 wave in an acidic med-
ium and 2 waves at pH 8.9-9.4. The half-wave potential of
the 1st more pos. wave depends on the concn. of the buffer
and, linearly, on the pH, whereas that of the 2nd wave is
practically independent of pH. Establishing the equil.
between the 2 forms of Ac₂ reducible at different potentials
is supposed to be acid-base catalyzed. Dependence of the
catalysis on pH was followed in the Sorensen phosphate
buffer, Walpole acetate buffer, Clark-Lubs acidic and alk.
buffers, and the Kolthoff phosphate-borate buffer. Max.
catalytic effect was observed in the 1st (pH 8.4) and min. in
the last (pH 7.6) of the buffers. In acidic medium the
limiting current of the 1st wave is only 1/4 to 1/3 of the value
expected for a 2-electron reduction. When 2 waves are
formed, their total limit current corresponds to a 2-electron
reduction. The heights of the waves are directly propor-
tional to the concns. of Ac₂ and the ratio of their limiting
currents do not change with changes of concns. in the same
buffer.

M. Hudlický

Analysis

5

Polarographic Examination of Some Amino-Acid Complexes Formed with Ferrous Metals. R. Pletchna, *Chem. Listy*, 1951, **45**, May, 185-189. (In Czech). A description is given of a polarographic and oscillographic study of complexes of amino acids formed with ferrous metals, and of their stability. P. V.